

# Air Quality Mitigation Measures

## **ROP A-7 Air Quality**

Prevent unnecessary or undue degradation of the air and lands and protect health.

## **ROP A-9 Vehicle Idling Standards**

Reduce air emissions and protect human health.

## **BMP A-9**

Reduce air quality impacts..

## **BMP A-12**

Minimize the negative health impacts associated with oil spills

## **ROP H-5 Public Availability of Environmental Data**

Make data and summary reports derived from North Slope studies easily accessible to the public

## **ROP M-3 Minimize Bare Soil**

Reduce areas of bare soil that can contribute to dust emission to protect human health and subsistence resources.

# Additional Suggested Air Quality Mitigation Measures

- BLM would require that CPAI implement a Fugitive Dust Control Plan to mitigate impacts from fugitive PM emissions from the Project. This plan would require regular watering of pads and unpaved roads, enforcing speed limits on unpaved access and haul roads, and several other measures to reduce fugitive dust emissions and impacts. The Fugitive Dust Control Plan is provided as Appendix I.3.
- Install air quality monitoring stations at a predominantly down-wind location on a gravel pad used to directly support drilling or operations (e.g., drill site pad, processing facility pad). One air monitoring station will be required for every five drill site pads or single processing facility, per development project. This data will be collected and be made publicly available in real time through the North Slope Science Initiative website.
- Expand the air monitoring capabilities in Nuiqsut to include monitoring for hazardous air pollutants (HAPs), volatile organic compounds (VOCs), and polycyclic aromatic hydrocarbons (PAH). The measured concentrations will be made available in near real time for the community and the public at large .
- CPAI shall fund the Nuiqsut air quality monitoring station. A third-party contractor will be identified to operate and maintain the station. The third-party contractor will develop a training program open to Nuiqsut residents for operating and maintaining the monitoring station, with appropriate technical oversight completed by the contractor.
- CPAI will use Tier 4 engines for developmental drilling and for well stimulation (prior to the high-line power being available from the Willow processing facility).
- CPAI will prepare a coordination plan between the Kuparuk, Alpine, and Willow developments to minimize the use flaring across all three developments and to reduce the incidences of multiple facilities flaring simultaneously. When simultaneous flaring must occur, the length of flare overlap shall be minimized to the greatest extent possible.
- CPAI will use waste heat recovery for building and process heat the Willow processing facility.

# GHG Mitigation Measures

## **ROP A-7 Air Quality**

Prevent unnecessary or undue degradation of the air and lands and protect health.

## **ROP A-9 Vehicle Idling Standards**

Reduce air emissions and protect human health.

## **ROP C-2 Winter Tundra Travel**

Protect stream banks, minimize the compaction of soils, and minimize the breakage, abrasion, compaction, or displacement of vegetation.

## **LS K-1 River Setbacks**

Minimize the disruption of natural flow patterns and changes to water quality and the disruption of natural functions resulting from the loss or change to vegetative and physical characteristics of floodplain and riparian areas; the loss of spawning, rearing, or overwintering habitat for fish; the loss of cultural and paleontological resources; the loss of raptor habitat; impacts on subsistence cabins and campsites; the disruption of subsistence activities; and impacts on scenic and other resource values.

# Additional Suggested GHG Mitigation Measures

- A NEPA adequacy review will be completed if the barrels per day gross annual average is greater than 10% of the original barrels per day production target (disclosed in the development's most recent NEPA document) over a two-year period; or when the cumulative recovered reserves is greater than 10% of the original estimated recoverable reserves (disclosed in the development's most recent NEPA document).
- CPAI will prepare an adaptive management plan that will be responsive to climate change by monitoring and mitigating potential thawing and thermokarst impacts on all project structures including roads, pads, and the constructed freshwater reservoir .
- CPAI will prepare a coordination plan between the Kuparuk, Alpine, and Willow developments to minimize the use flaring across all three developments and to reduce the incidences of multiple facilities flaring simultaneously. When simultaneous flaring must occur, the length of flare overlap shall be minimized to the greatest extent possible.
- CPAI will use Tier 4 engines for developmental drilling and for well stimulation (prior to the high-line power being available from the Willow processing facility).
- CPAI will use waste heat recovery for building and process heat the Willow processing facility.